

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 7/10/2015  
Effective: 7/10/2015

Version: DMCEF 2015 R1  
Status: Active

Instrument S/N 100356 Analyst Colleen O'Bryant Start Date 5/4/16

1. Diagnostic Test (attached) \* Internal Standard value  $\leq 3.00\%$  Yes
1. Voltage Checks
- a. Adjust voltages, if needed 
    - i. Lamp (2.6V Maximum)
    - ii. Bias
    - iii. Cooler (2.0V Maximum)
    - iv. Chopper Frequency
    - v. Detector Voltage (-0.100V to 0.100V)
  - b. Set RFI
  - c. Adjust barometer reading to match NIST traceable barometer
  - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
  - e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf ILMO Lot 02915030A2 Exp 3/5/17
- ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17
- iii. 0.080g/210L Mnf ILMO Lot 01315080A3 Exp 2/5/17
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17
  - 1. Simulator S/N DE5298 Date Calibrated 8/5/15
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N SD1198 Date Calibrated 8/5/15

5. Functional Tests (attached)

- a. Incomplete  *\*updated software*
- b. Invalid
- c. Interference  *during functional tests*
- d. Exceeded attempts

- i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1199 Date Calibrated 8/5/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1177 Date Calibrated 8/5/15
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N DBA161 Date Calibrated 8/5/15

e. RFI

6. Verify stylus is calibrated

7. Reset Options

8. Clear Memory

9. Verification of Calibration

10. Non-Drinking Subject Test (attached)

11. Upload

13. Remove tank prior to shut down

End Date 5/5/16

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100356

Date: 05/04/2016  
Time: 09:42:46

VERSIONS

DMT: 3.01\*  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

*updated software  
during functional  
tests COB 5/4/16*

TEMPERATURES

Sample Chamber = 49.1°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.2°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.58 V PASSED  
(0.95 V - 2.21 V)  
Cooler Voltage = 1.59 V PASSED  
(0.97 V - 2.27 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 530 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.893 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF PASSED  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.107 0.58% (0.00% - 4.00%) PASSED

*3.01 to 3.02 software update!  
removed legal verbage at the  
bottom of the VOC form.  
No other changes made.  
COB 5/5/16*

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100356  
-----

Date: 05/05/2016  
Time: 15:28:29

VERSIONS

DMP: 3.02  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
Breath Tube = 45.4°C PASSED

PUMP INFO

Flow Rate = 4.812 L/M PASSED

DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

PASSED

Technician Screen

-----  
DATAMASTER dmt: 100356  
-----

Date: 05/04/2016

Time: 10:55 AM

Temperatures (°C)

Sample Cell: 48.9°C

Breath Tube: 46.0°C

Current Barometer 29.7 in

Volume (Ltr) 1.57

Settings

Lamp: 1.63 V

Bias: 80 V

Cooler: 1.62 V

Chopper: 530 Hz

Voltages (V)

Flow: 1.05 V

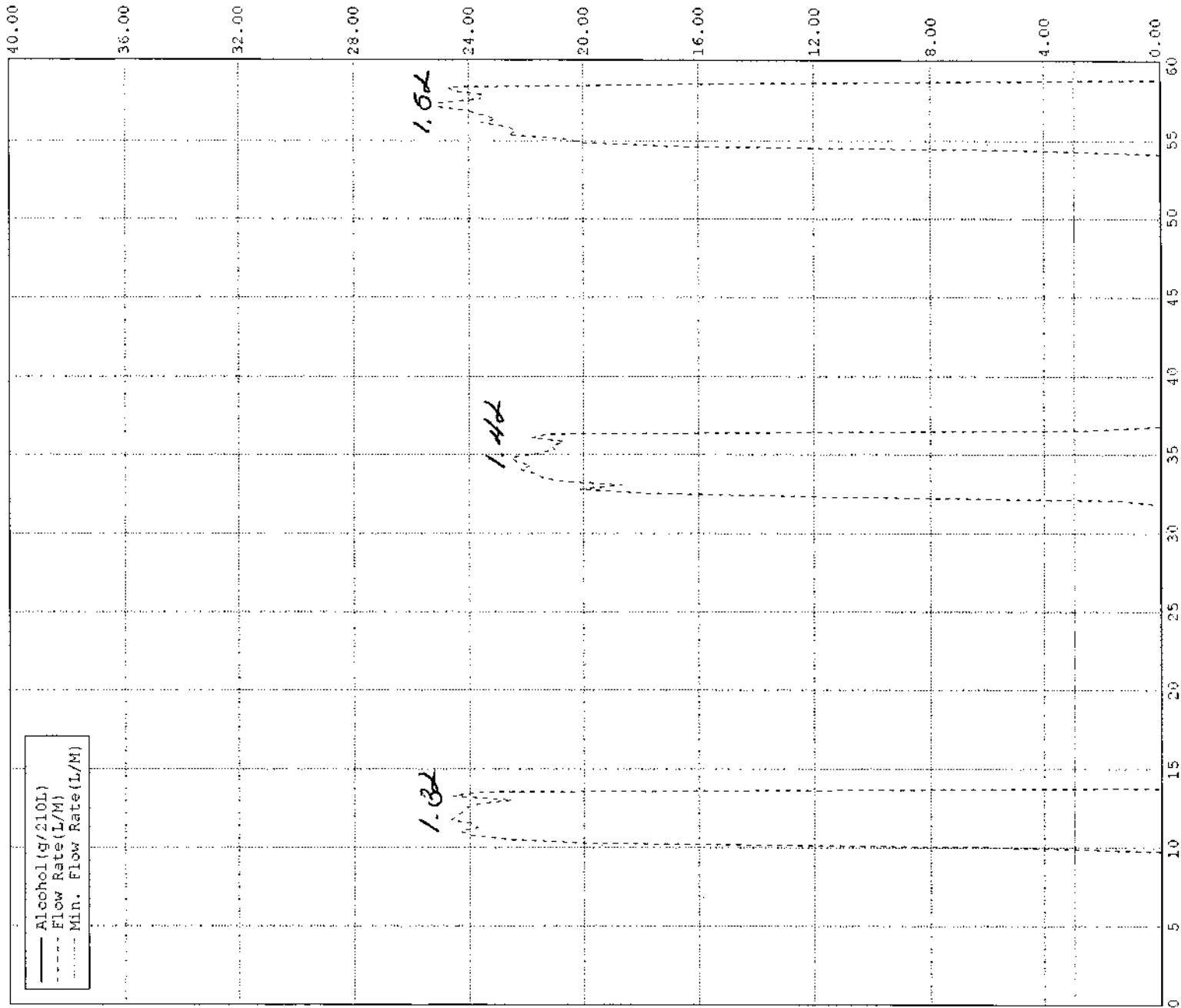
Detector: 0.020 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100356  
-----

Date: 12/13/2011  
Time: 08:03:56

Ca = 0.1000  
CAL = 0.987816 0.800 <= CAL < 1.200  
b1 = 0.0000 0.0000 <= b1 < 0.0040  
b2 = 0.0032 0.0010 <= b2 < 0.0100  
b3 = 0.0000 0.0000 <= b3 < 0.0040  
Xq = 0.1063 0.0500 <= Xq < 0.2000  
a21 = 1.207667 1.050 <= a21 < 1.300  
a31 = 0.471870 0.300 <= a31 < 0.800



SUBJECT TEST

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100356  
 -----  
 Date: 05/04/2016  
 Time: 12:52:35

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: VOLUME TEST

OPERATOR NAME:  
 COLLEEN S O'BRYAN  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAA1

CASE/REPORT: 16-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.66: 0.079  
 LOT #: 01315080A3  
 EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:56
BLANK TEST	0.000	12:56
INTERNAL STANDARD	VERIFIED	12:56
EXTERNAL STANDARD	0.078	12:56
BLANK TEST	0.000	12:57
SUBJECT SAMPLE (Vol=1.60L)	0.000	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.078	12:59
BLANK TEST	0.000	13:00

CAB

LINEARITY CHECK

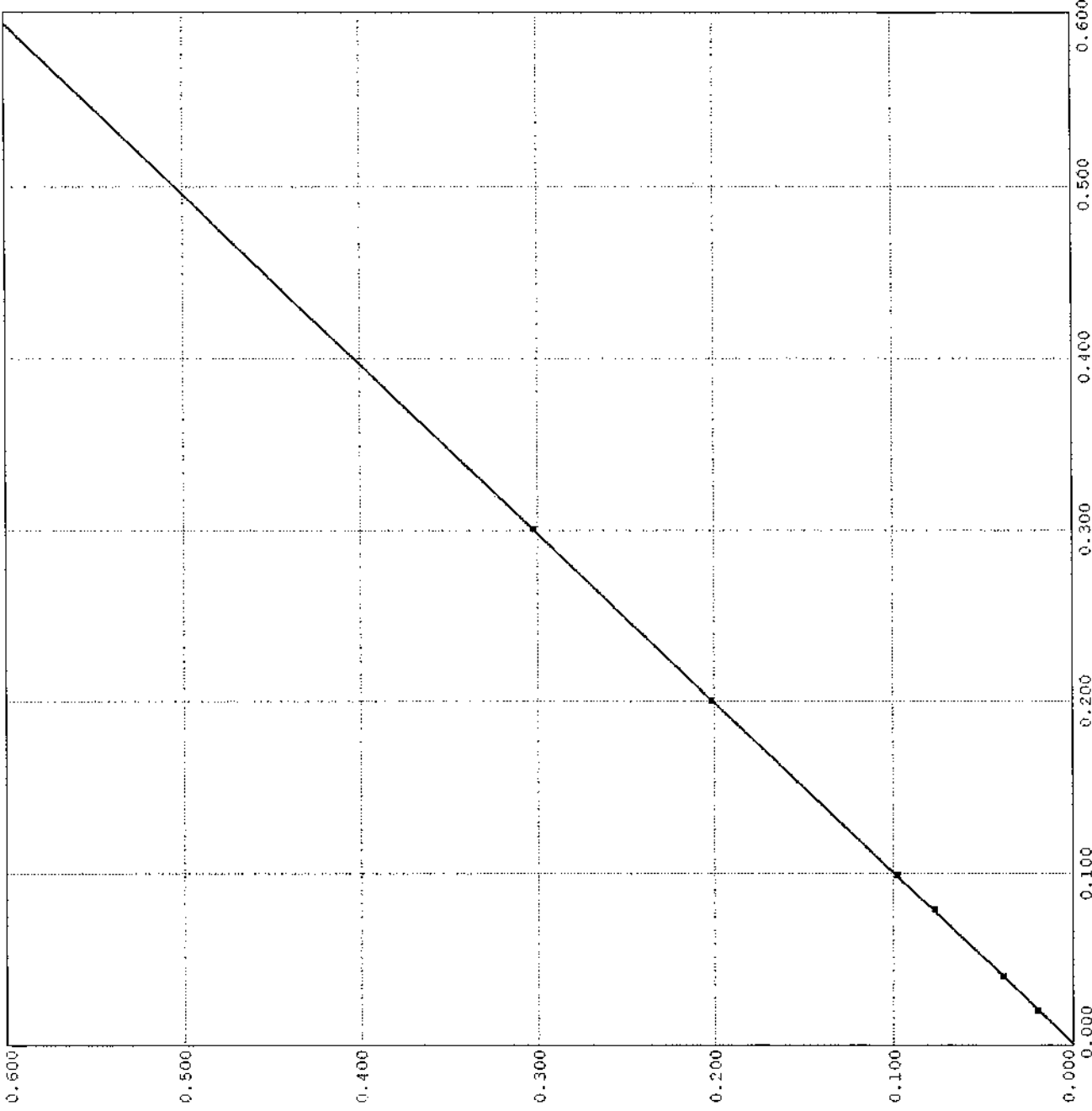
Alaska Department of Public Safety  
 DATAMASTER dnt: 100356

Date: 05/04/2016  
 Time: 13:13:00

SUPERVISOR NAME:  
 COLLEEN S O'BRYAN  
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0208	0.0004
0.040	0.0400	0.0000
0.079	0.0780	0.0000
0.099	0.0988	0.0004
0.200	0.2024	0.0005
0.300	0.3032	0.0013

SLOPE = 1.012531  
 R<sup>2</sup> = 0.999929



*CAB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

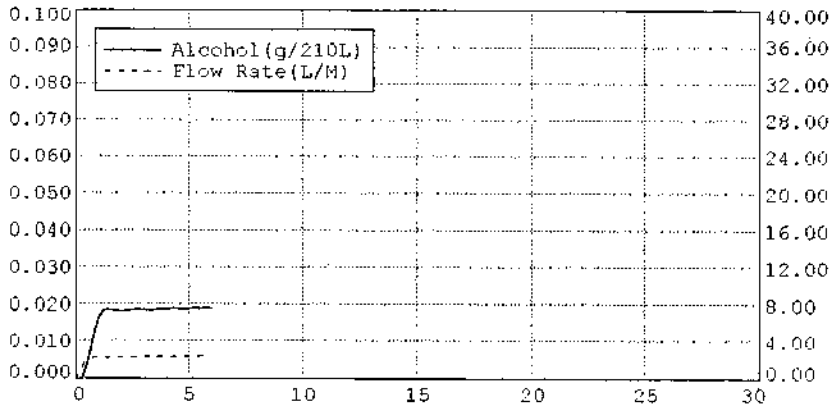
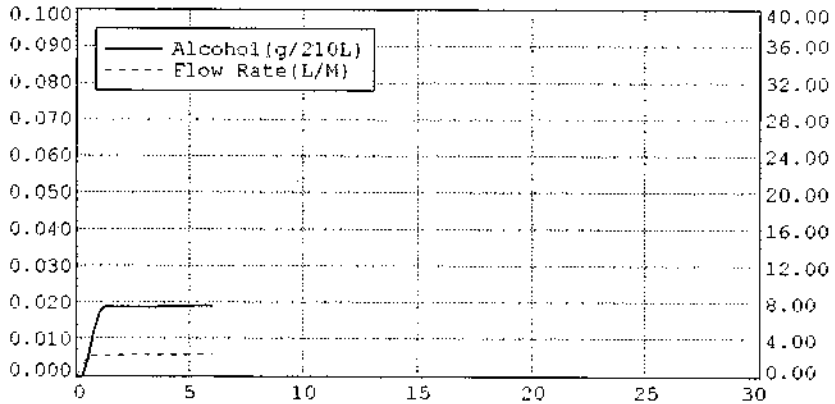
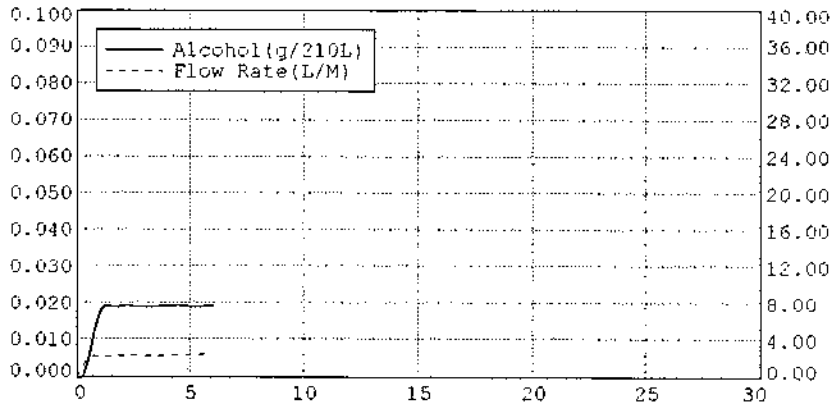
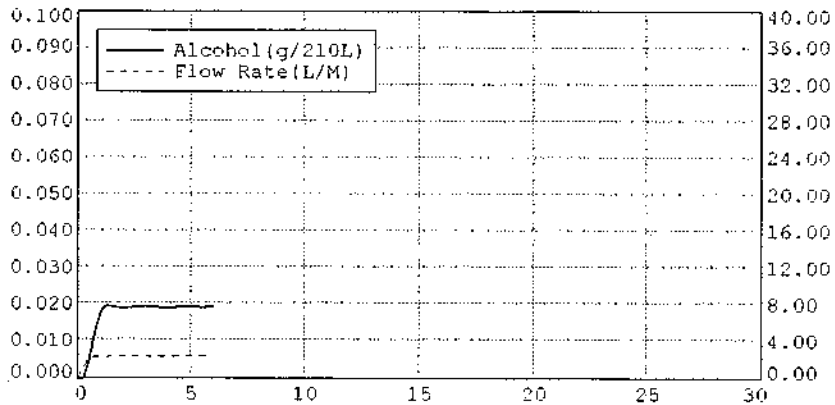
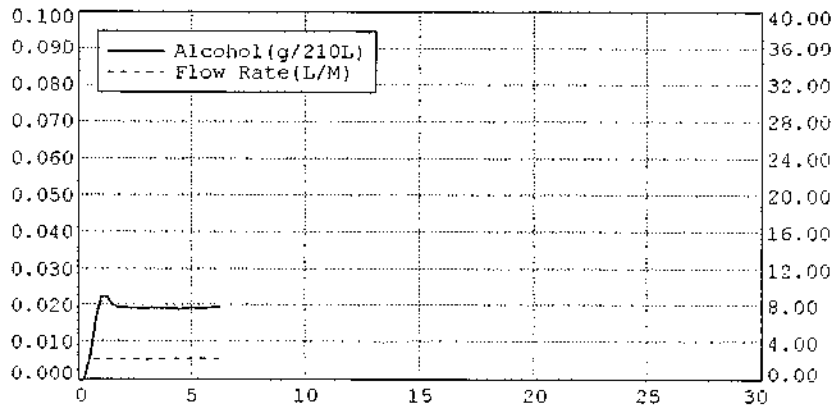
Date: 05/04/2016  
 Time: 13:13:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.65: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 862 psi

BLANK TEST	0.000	13:16
INTERNAL STANDARD	VERIFIED	13:16
EXTERNAL STANDARD	0.021	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.021	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.021	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.021	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.020	13:21
BLANK TEST	0.000	13:22

Average = 0.0208  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

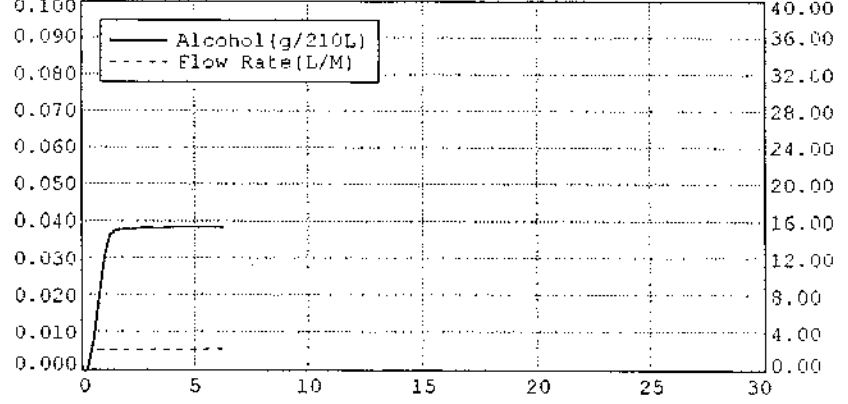
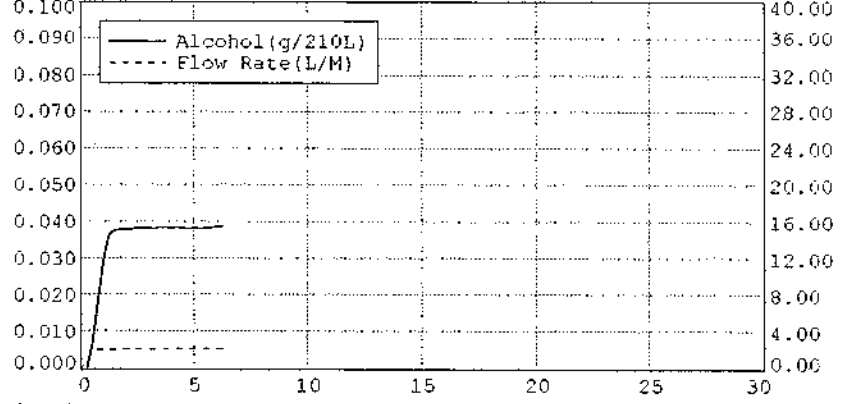
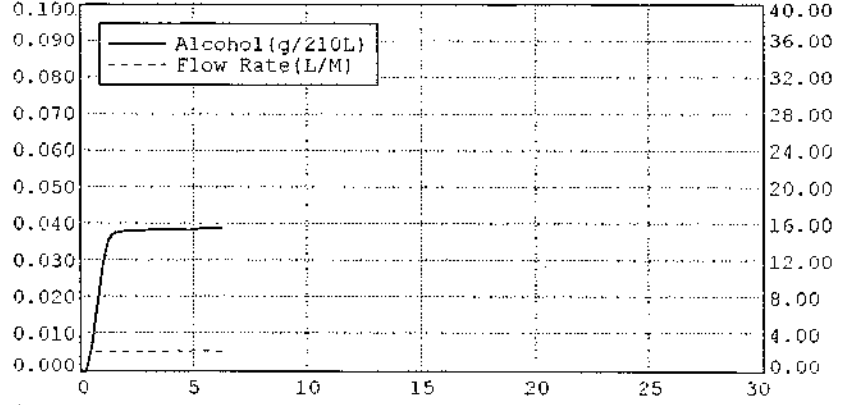
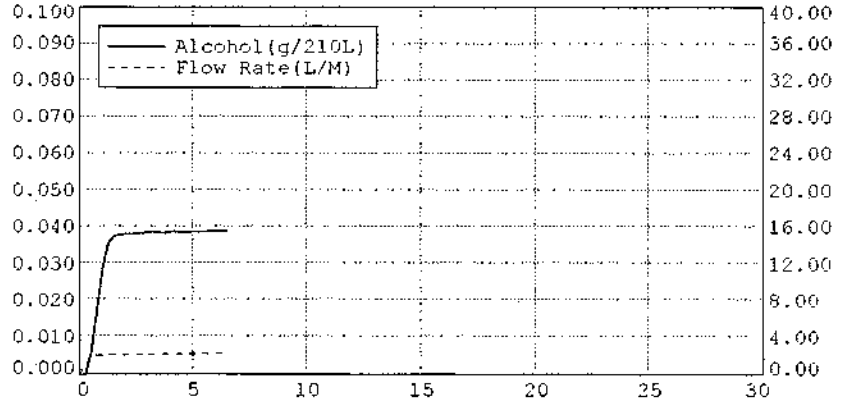
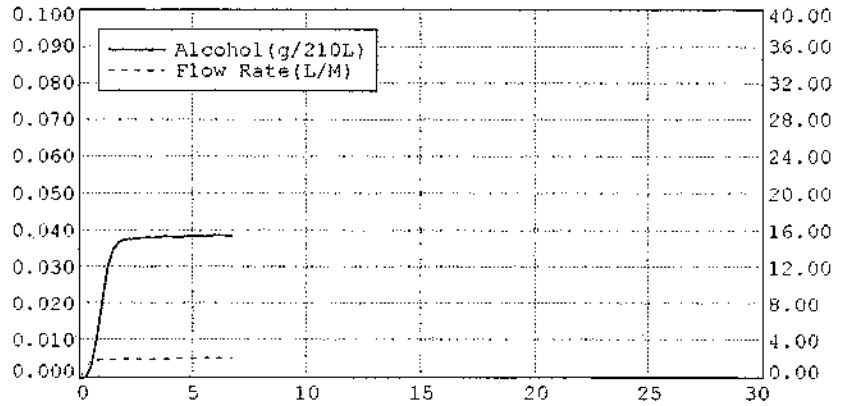
Date: 05/04/2016  
 Time: 13:23:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.64: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 330 psi

BLANK TEST	0.000	13:25
INTERNAL STANDARD	VERIFIED	13:25
EXTERNAL STANDARD	0.040	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.040	13:26
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.040	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.040	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.040	13:30
BLANK TEST	0.000	13:30

Average = 0.0400  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

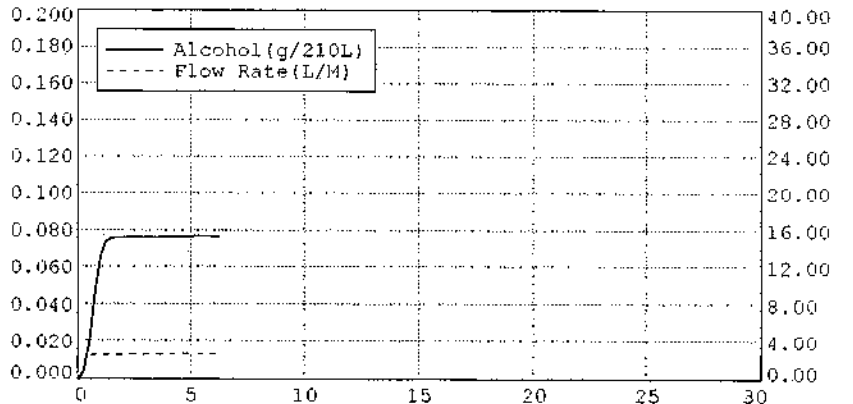
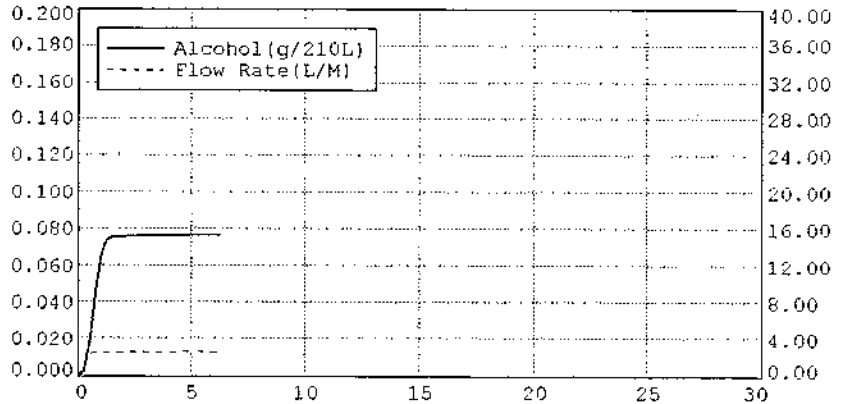
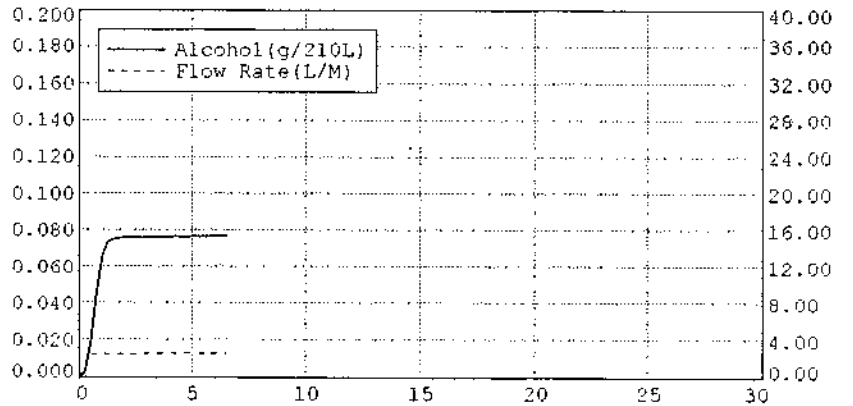
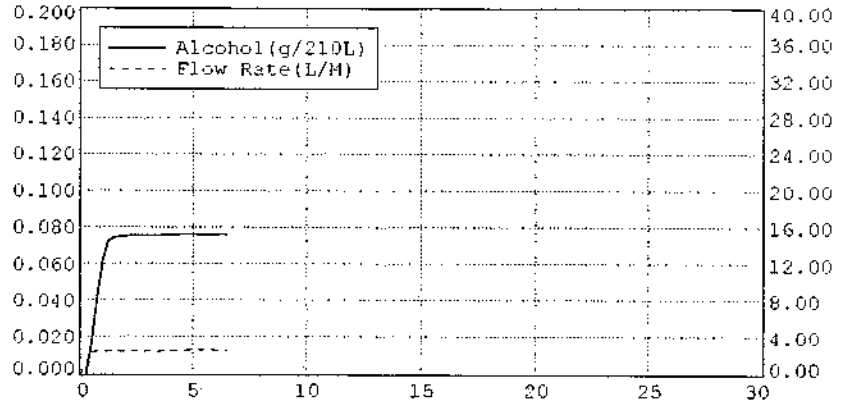
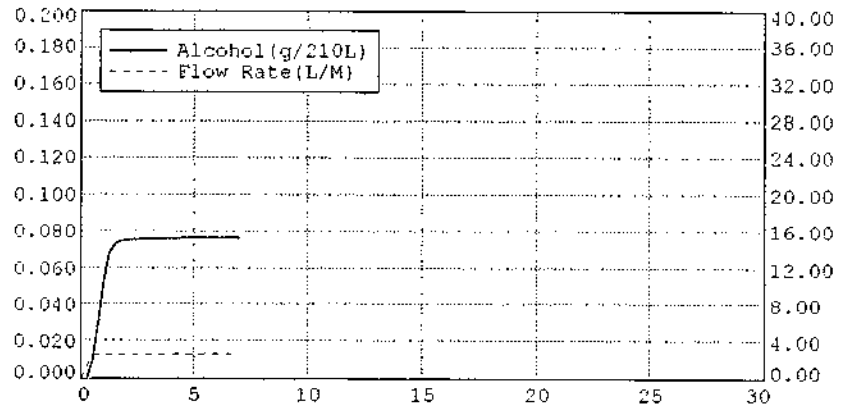
Date: 05/04/2016  
 Time: 13:31:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.65: 0.079  
 LOT #: 01315080A3  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 985 psi

BLANK TEST	0.000	13:32
INTERNAL STANDARD	VERIFIED	13:32
EXTERNAL STANDARD	0.078	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.078	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.078	13:35
BLANK TEST	0.000	13:35
EXTERNAL STANDARD	0.078	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.078	13:37
BLANK TEST	0.000	13:38

Average = 0.0780  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

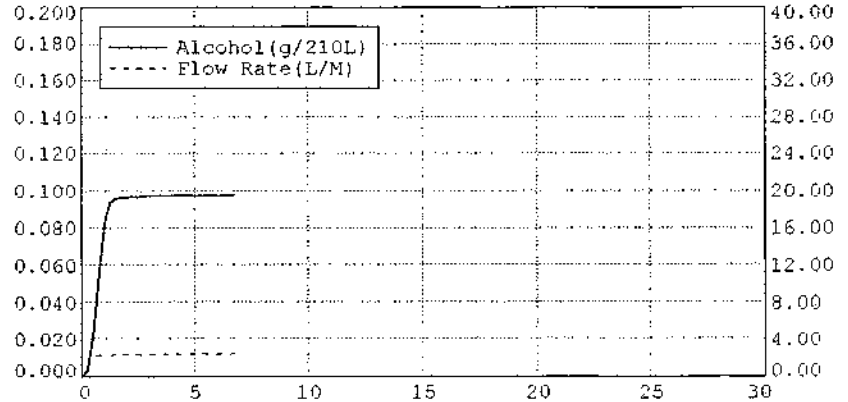
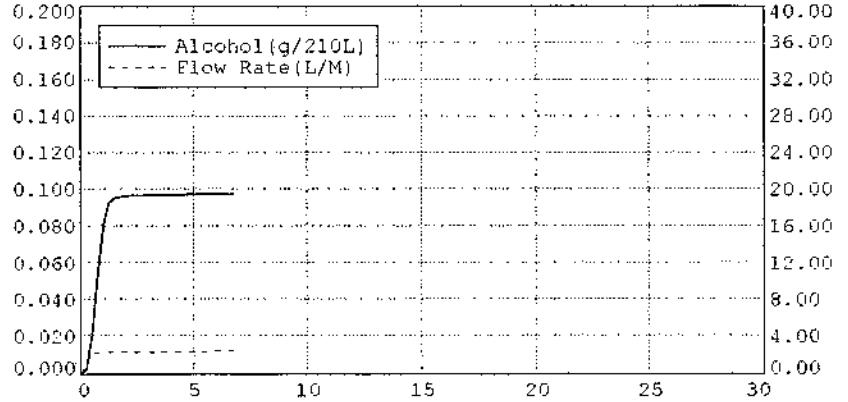
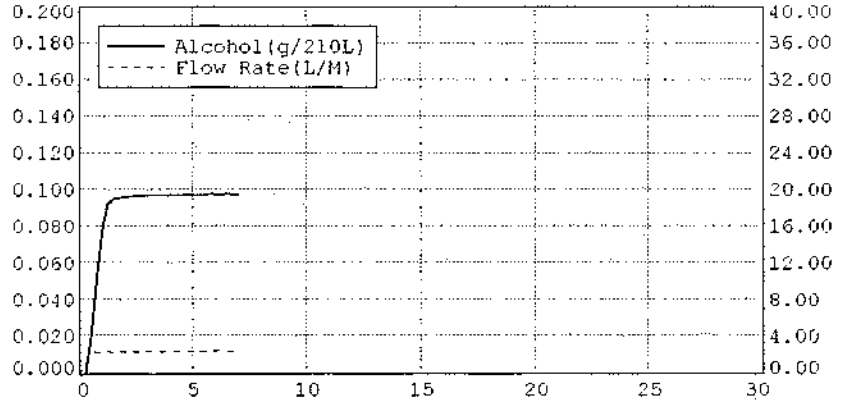
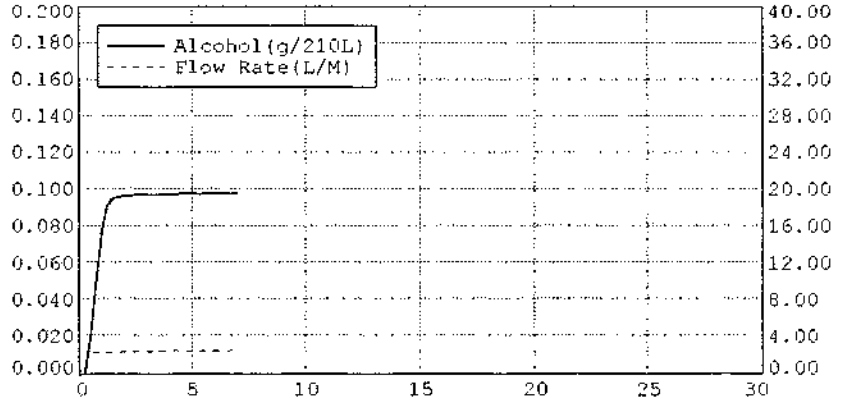
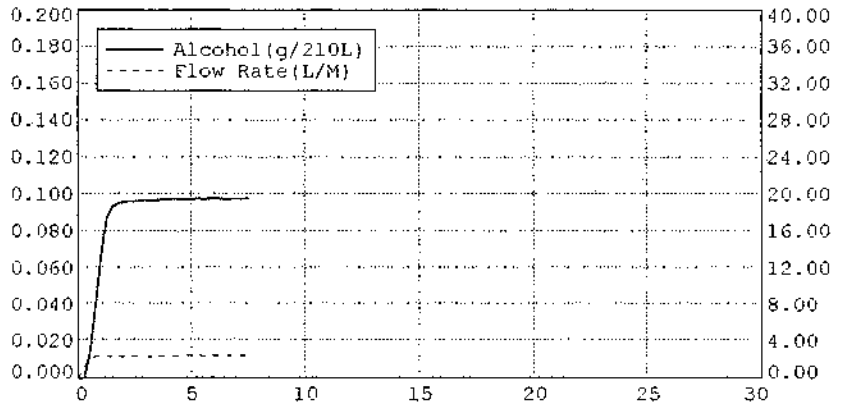
Date: 05/04/2016  
 Time: 13:39:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.64: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 607 psi

BLANK TEST	0.000	13:41
INTERNAL STANDARD	VERIFIED	13:41
EXTERNAL STANDARD	0.099	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.099	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.099	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.098	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.099	13:45
BLANK TEST	0.000	13:46

Average = 0.0988  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

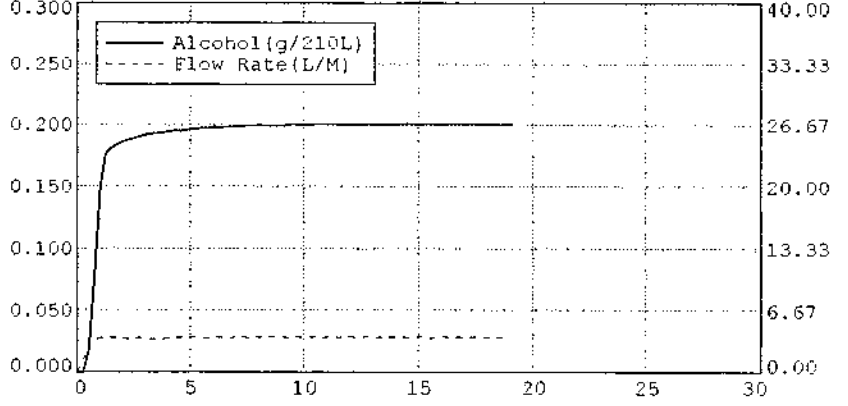
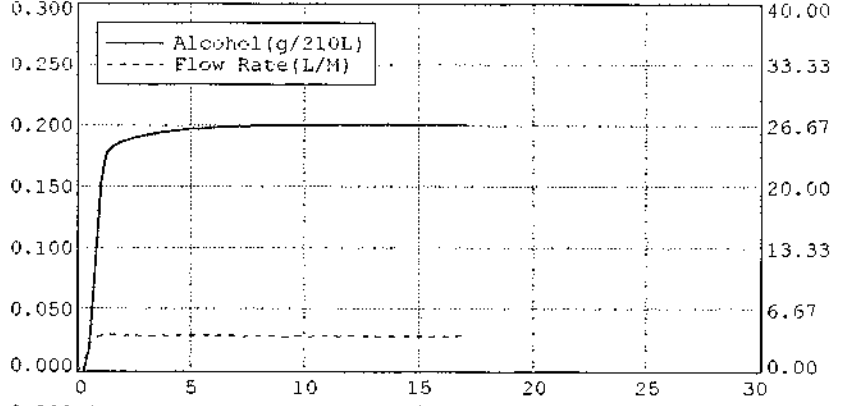
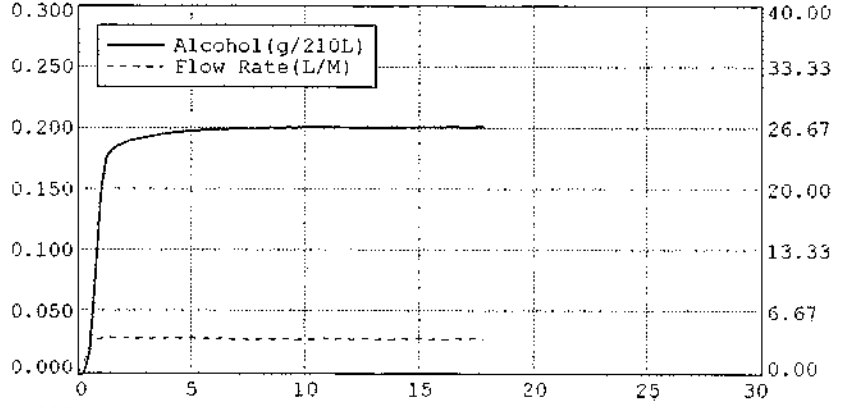
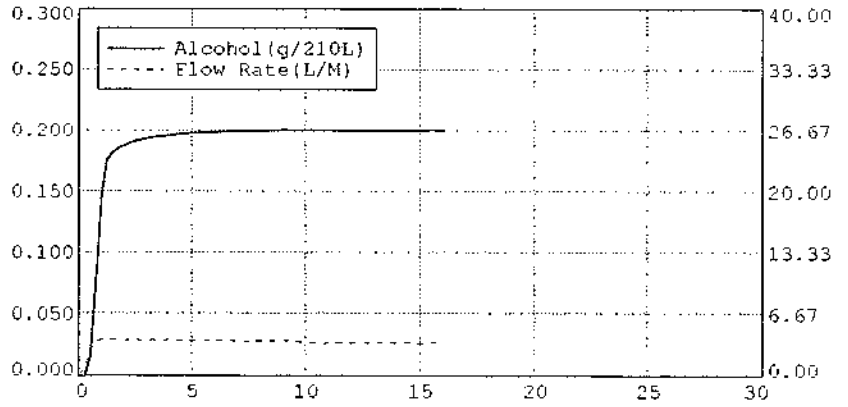
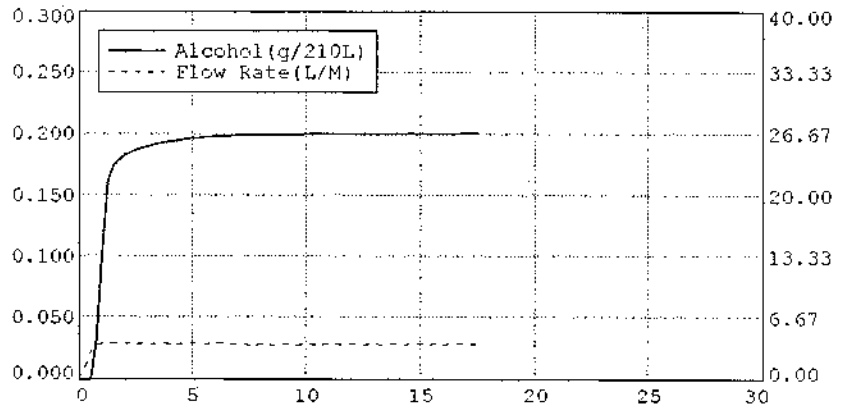
Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

Date: 05/04/2016  
 Time: 13:48:19

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	13:50
INTERNAL STANDARD	VERIFIED	13:50
EXTERNAL STANDARD	0.202	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.202	13:52
BLANK TEST	0.000	13:53
EXTERNAL STANDARD	0.203	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.203	13:55
BLANK TEST	0.000	13:55
EXTERNAL STANDARD	0.202	13:56
BLANK TEST	0.000	13:57

Average = 0.2024  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100356

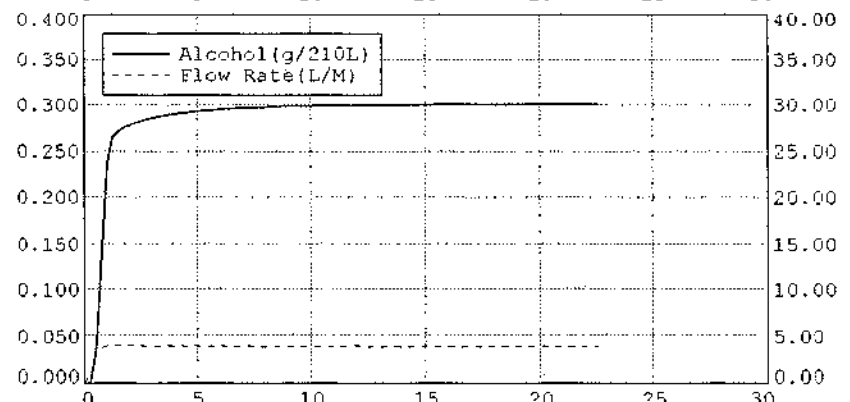
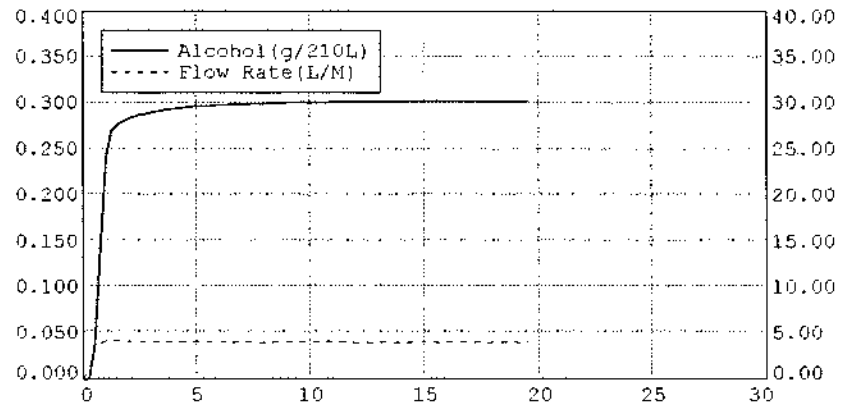
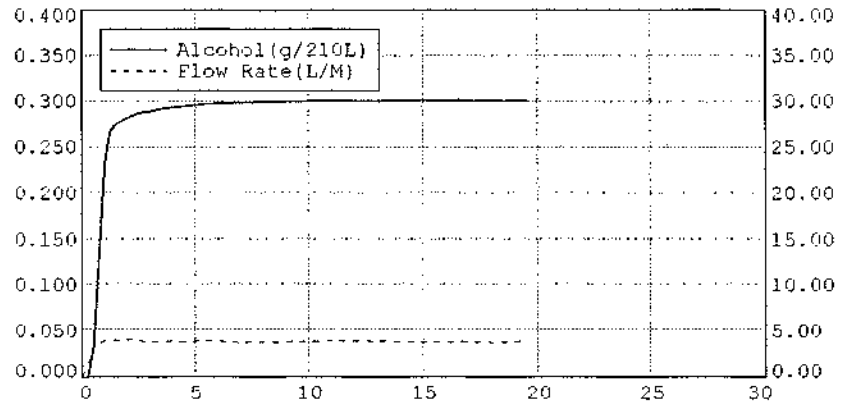
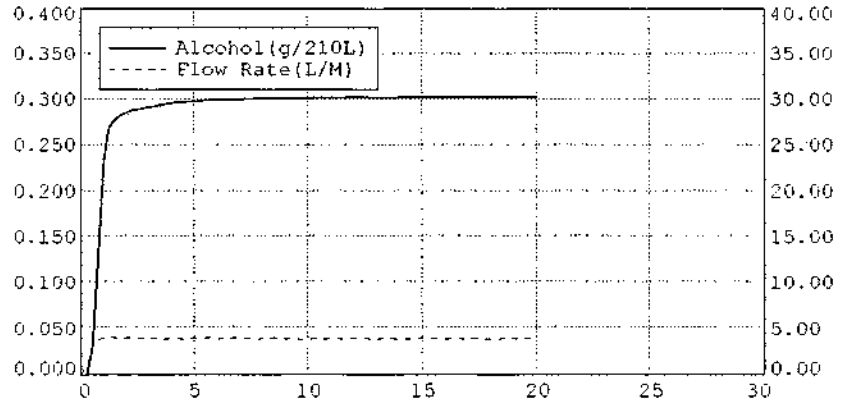
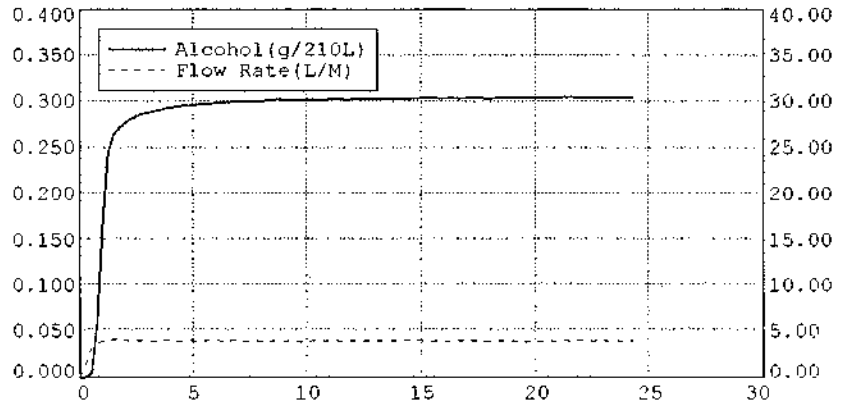
Date: 05/04/2016  
 Time: 13:58:27

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 15170  
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	14:01
INTERNAL STANDARD	VERIFIED	14:01
EXTERNAL STANDARD	0.305	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.304	14:03
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.302	14:04
BLANK TEST	0.000	14:05
EXTERNAL STANDARD	0.303	14:05
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.302	14:07
BLANK TEST	0.000	14:08

Average = 0.3032  
 Std Dev = 0.0013



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100356

Date: 05/04/2016

Time: 14:12:11

SUBJECT NAME:

TEST TEST

LICENSE #: INCOMPLETE

OPERATOR NAME:

COLLEEN S O'BRYAN

OPERATOR'S #: 6237

DEPT/AGENCY:

AAA1

CASE/REPORT: 16-1234

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.64: 0.079

LOT #: 01315080A3

EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK

PASSED 14:31

BLANK TEST 0.000 14:31

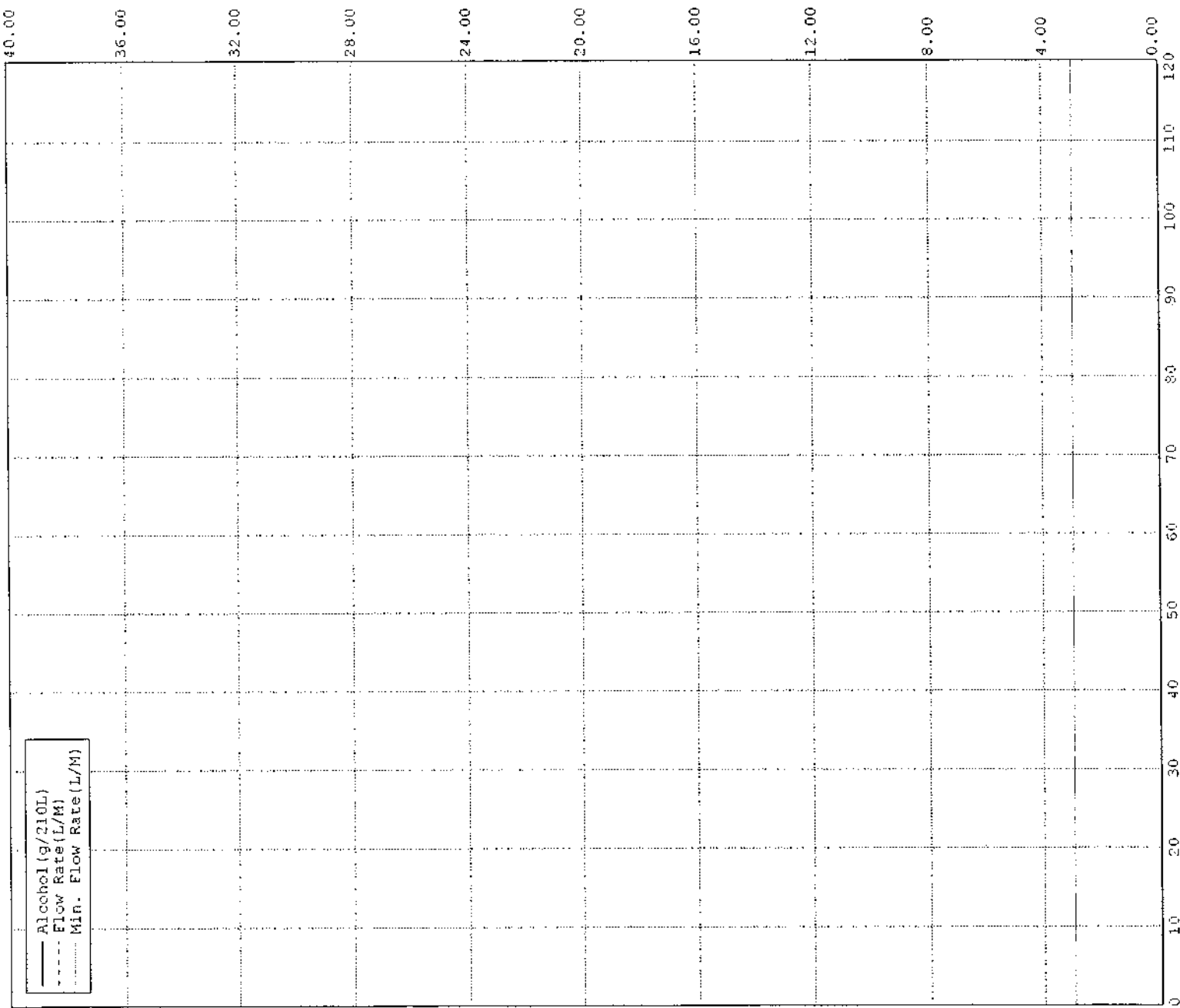
INTERNAL STANDARD

VERIFIED 14:31

EXTERNAL STANDARD 0.078 14:31

BLANK TEST 0.000 14:32

SUBJECT SAMPLE INCOMPLETE 14:34



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100356

Date: 05/04/2016  
Time: 14:36:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

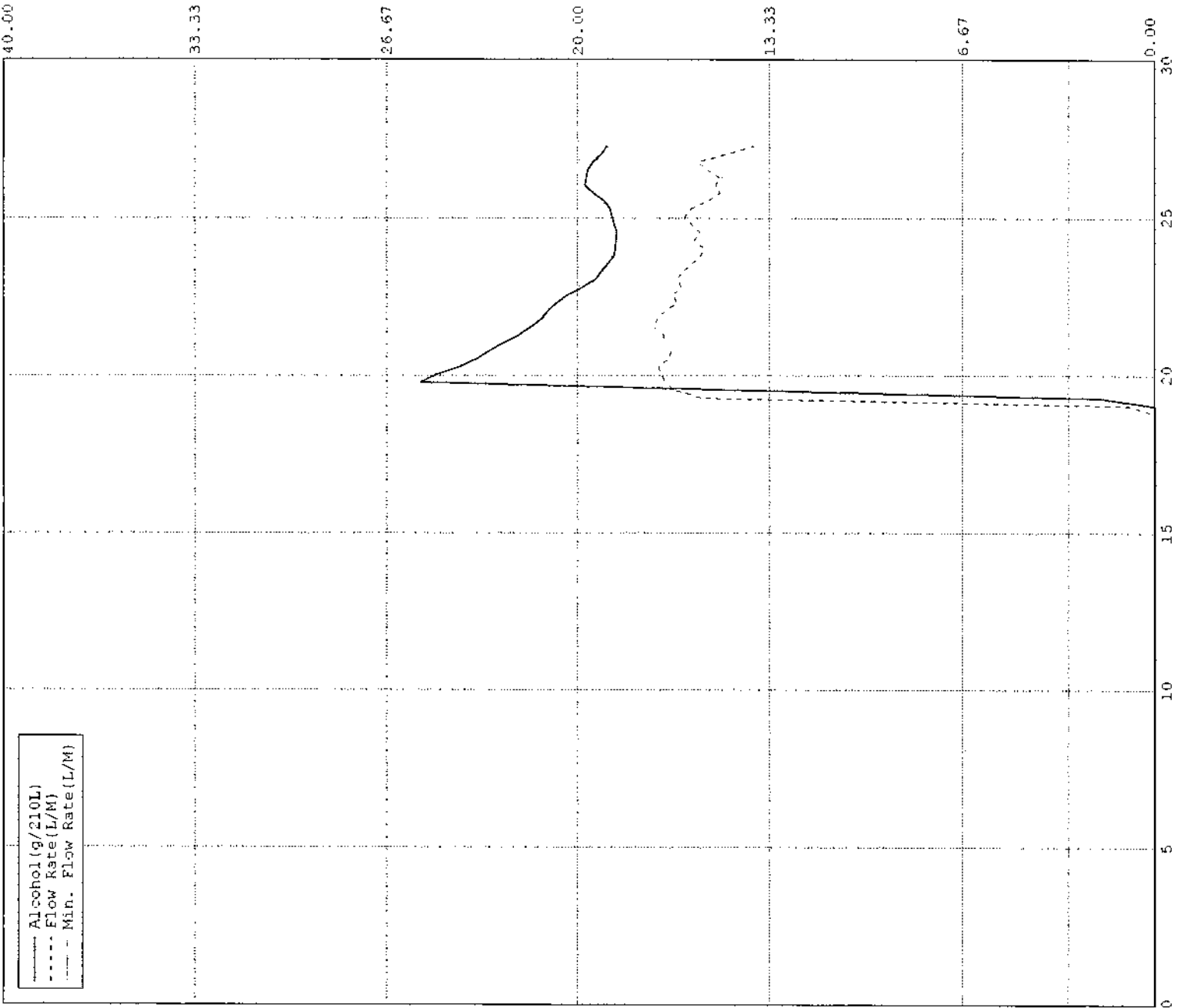
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.64: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:37
BLANK TEST	0.000	14:37
INTERNAL STANDARD	VERIFIED	14:38
EXTERNAL STANDARD	0.078	14:38
BLANK TEST	0.000	14:39
SUBJECT SAMPLE	INVALID	14:40

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100356

Date: 05/04/2016  
Time: 14:53:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

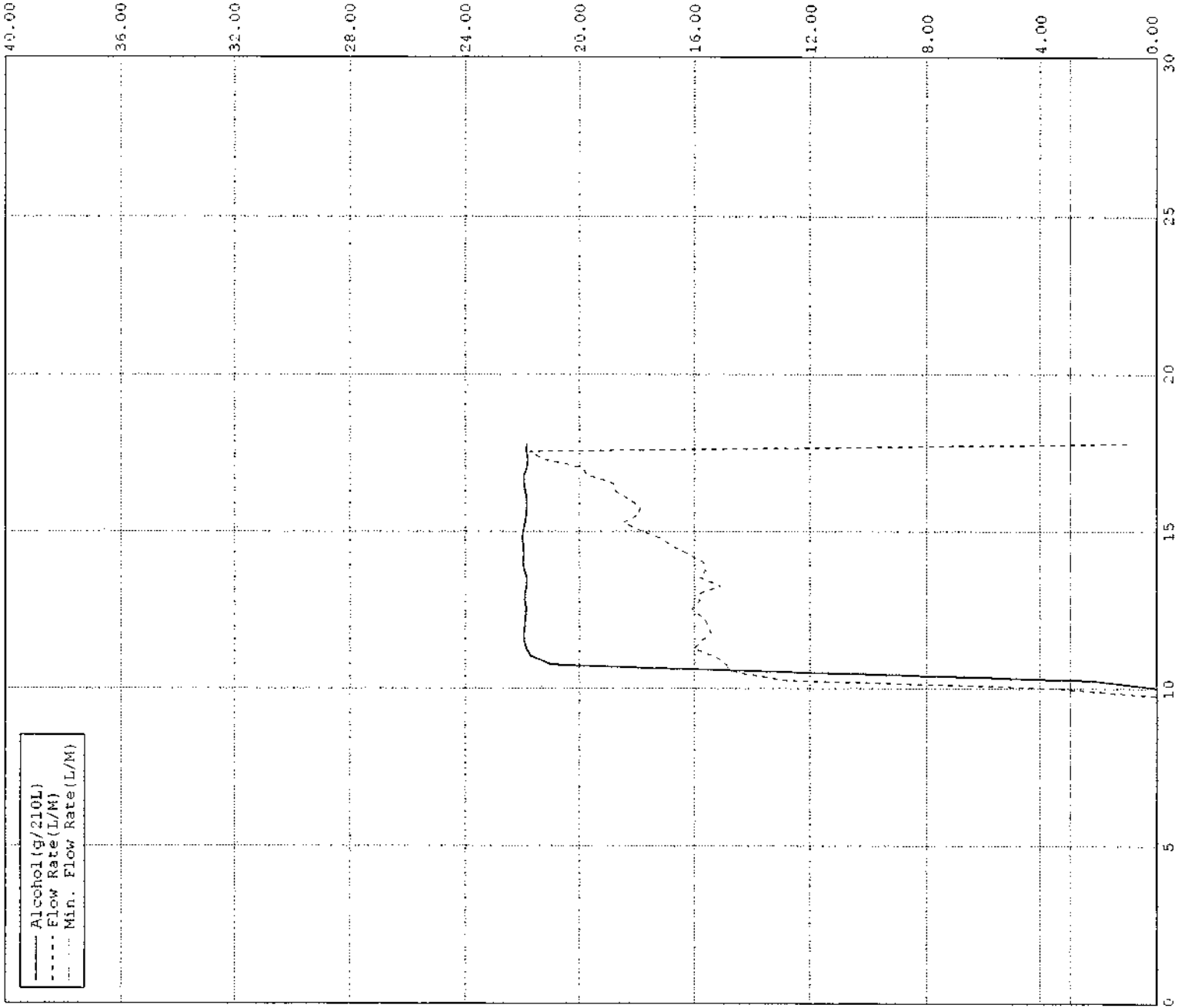
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:54
BLANK TEST	0.000	14:54
INTERNAL STANDARD	VERIFIED	14:54
$X_{ij} = 0.108$ (1.16%)		
EXTERNAL STANDARD	0.079	14:55
$X[1] = 0.0785$ (0.0018) (0.0031)		
BLANK TEST	0.000	14:55
SUBJECT SAMPLE	XXX	14:56
$X[1] = 0.1084$ (-0.0188) (0.0007)		

Interference Detected

*CS*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100356

Date: 05/04/2016  
Time: 14:59:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

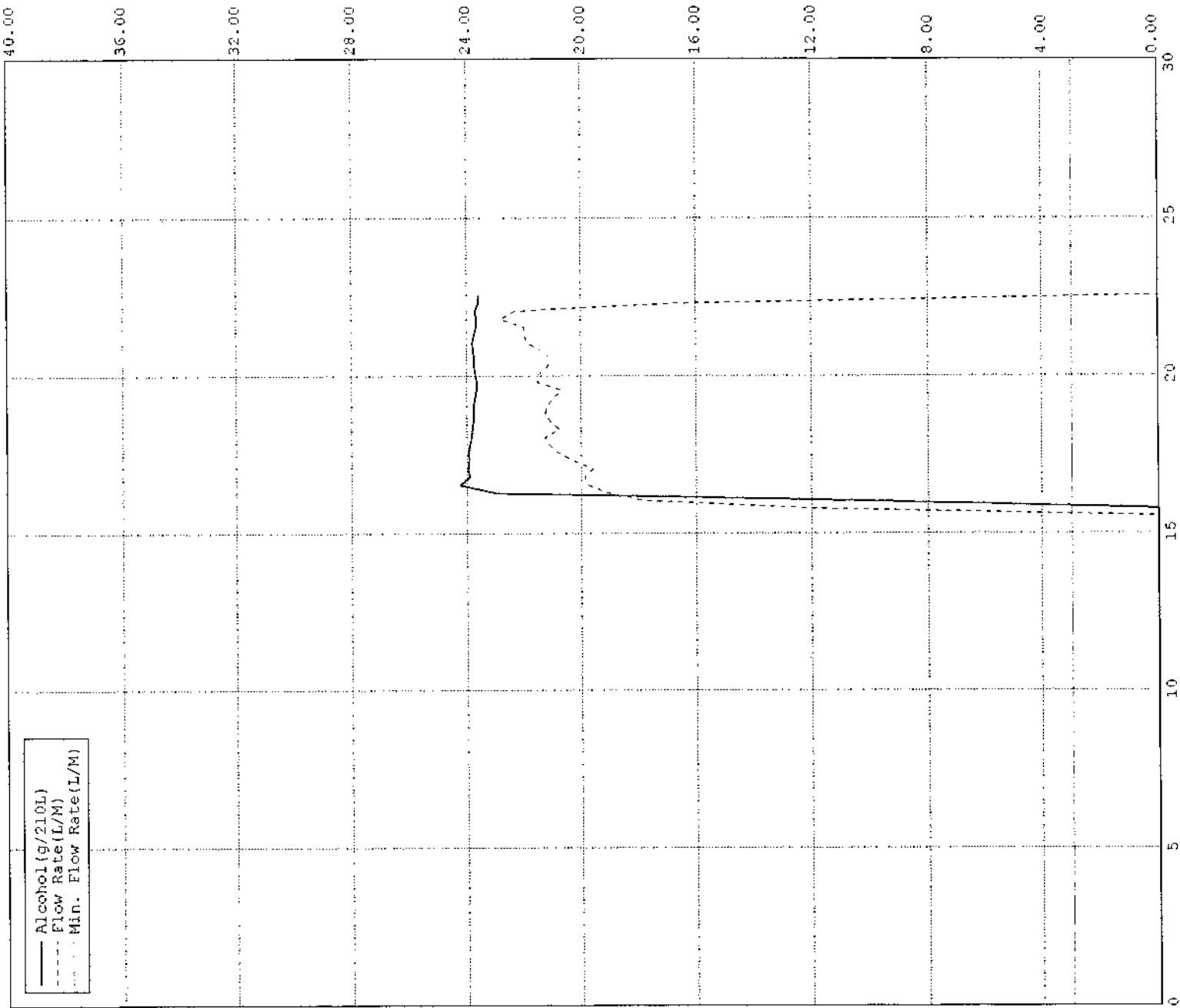
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

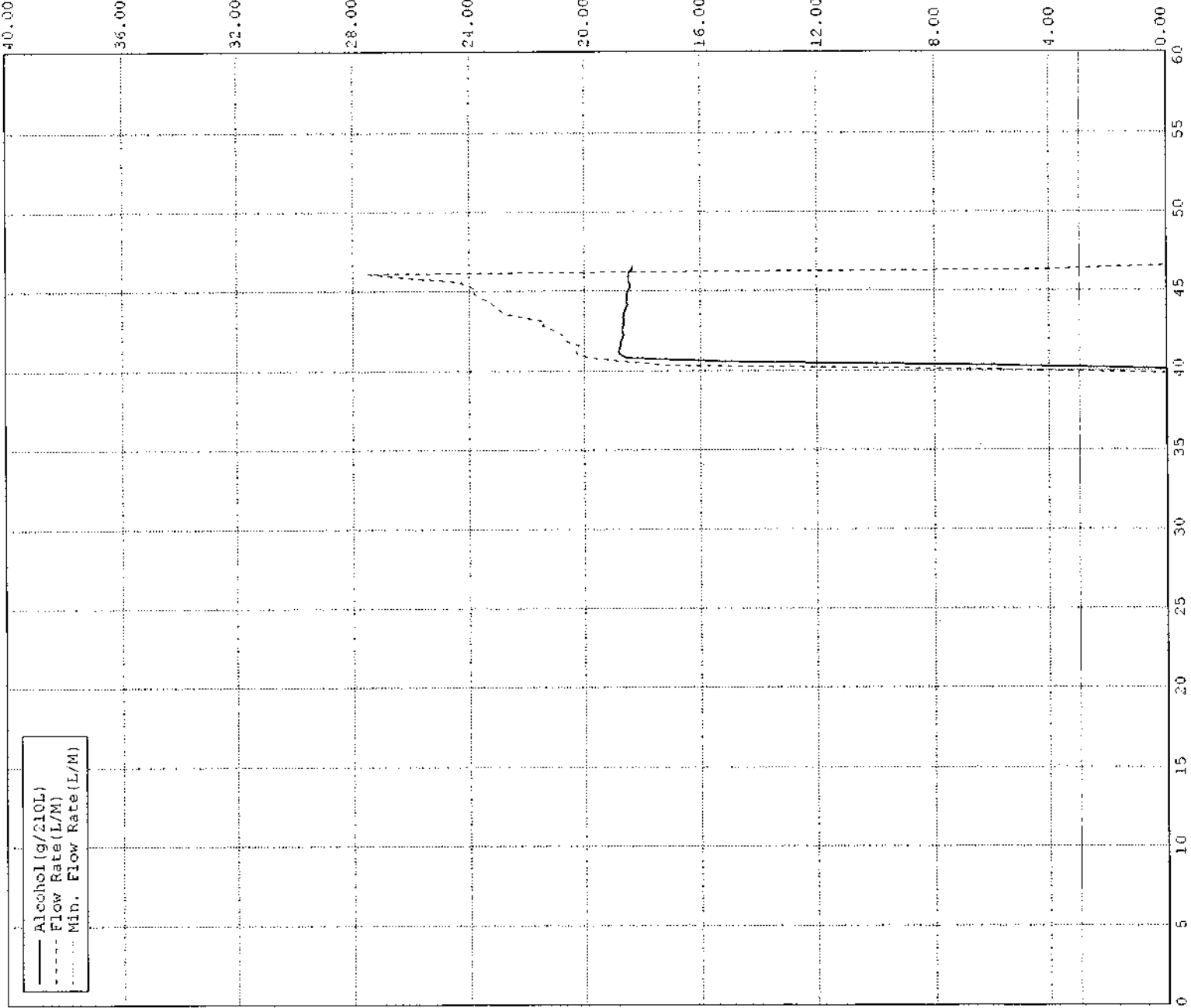
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.64: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 15:00  
BLANK TEST 0.000 15:00  
INTERNAL STANDARD VERIFIED 15:00  
 $Xq = 0.107 (0.91\%)$   
EXTERNAL STANDARD 0.078 15:01  
 $X[1] = 0.0780 (0.0020) (0.0031)$   
BLANK TEST 0.000 15:01  
SUBJECT SAMPLE XXX 15:02  
 $X[1] = 0.1170 (-0.0274) (0.0018)$

Interference Detected

*cb*





SUBJECT TEST

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100356  
 -----  
 Date: 05/04/2016  
 Time: 15:06:16

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INT-NEGATIVE

OPERATOR NAME:  
 COLLEEN S O'BRYAN  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAA1  
 CASE/REPORT: 16-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.64: 0.079  
 LOT #: 01315080A3  
 EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:08
BLANK TEST	0.000	15:08
INTERNAL STANDARD	VERIFIED	15:08
Xq = 0.107 (0.75%)		
EXTERNAL STANDARD	0.078	15:08
X[1] = 0.0777 (0.0012) (0.0031)		
BLANK TEST	0.000	15:09
SUBJECT SAMPLE (Vol=2.26L)	0.090	15:10
X[1] = 0.0908 (-0.0005) (0.0007)		
BLANK TEST	0.000	15:11
EXTERNAL STANDARD	0.078	15:11
X[1] = 0.0780 (0.0016) (0.0021)		
BLANK TEST	0.000	15:12

*Filter 2 avg = 0.0017*  
*Filter 3 avg = 0.0029*

*[Signature]*

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100356

Date: 05/05/2016  
Time: 10:32:54

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

OPERATOR NAME:  
COLLEEN S OBRVANT  
OPERATOR'S #: 6237

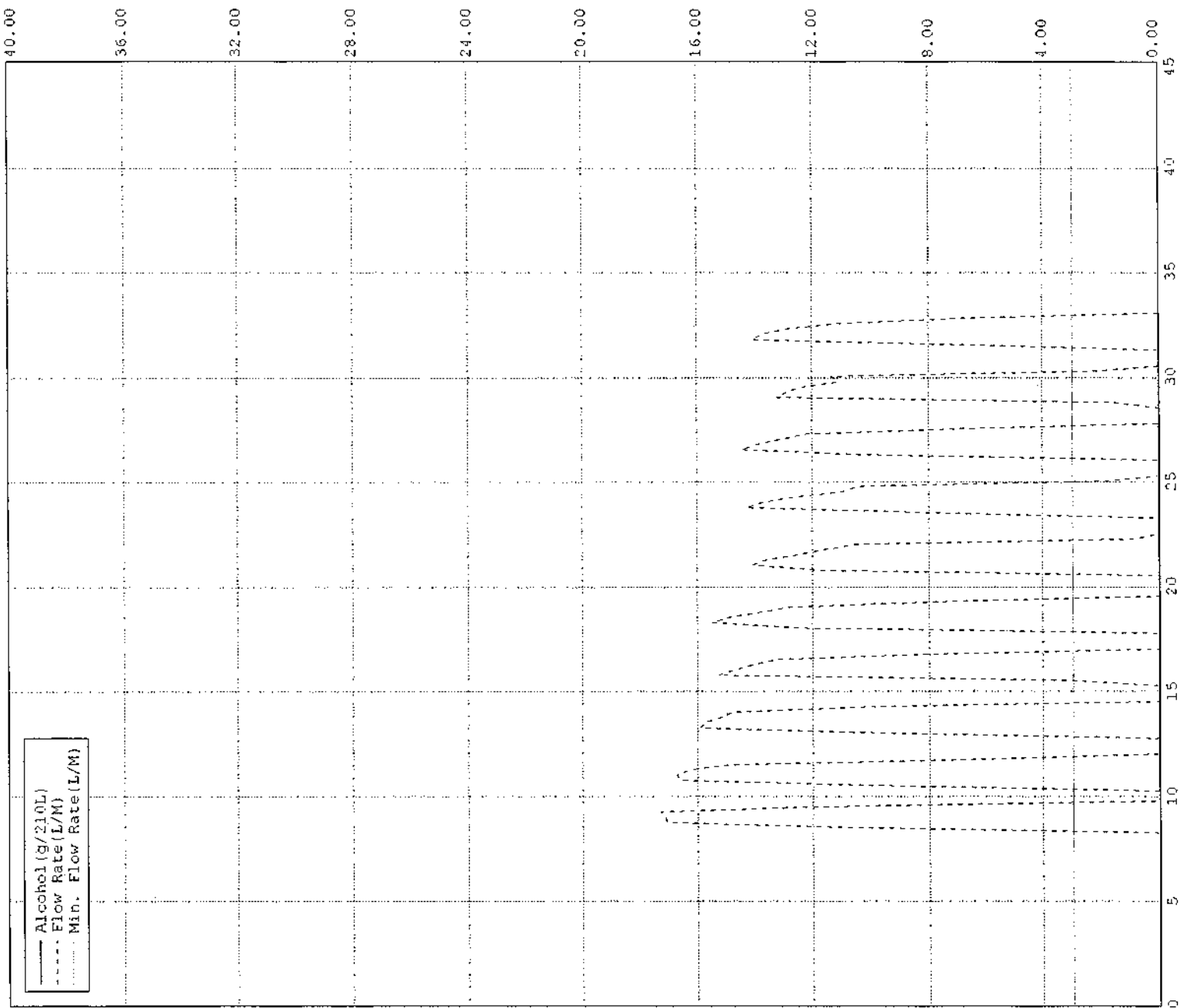
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:33  
BLANK TEST 0.000 10:34  
INTERNAL STANDARD VERIFIED 10:34  
EXTERNAL STANDARD 0.078 10:34  
BLANK TEST 0.000 10:35  
SUBJECT SAMPLE XXX 10:35

Maximum Attempts Exceeded

*CS*



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100356

Date: 05/05/2016

Time: 10:39:22

SUBJECT NAME:

TEST TEST

LICENSE #: RFI

OPERATOR NAME:

COLLEEN S O'BRYAN

OPERATOR'S #: 6237

DEPT/AGENCY:

AAA1

CASE/REPORT: 16-1234

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.60: 0.079

LOT #: 01315080A3

EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK

PASSED 10:40

0.000 10:40

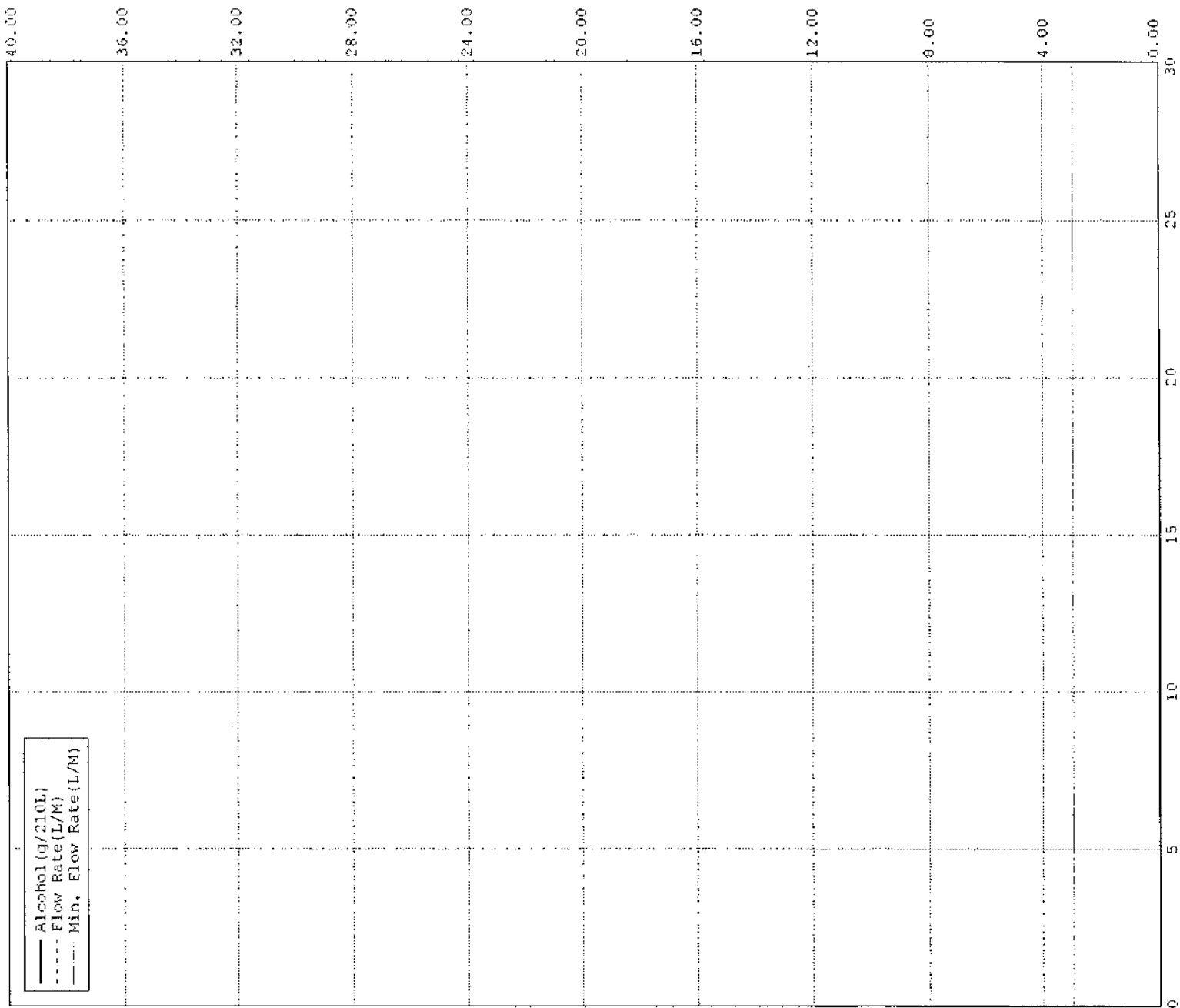
VERIFIED 10:40

0.078 10:40

0.000 10:41

RFI DETECTED

*RFI*



SUBJECT TEST

Alaska Department of Public Safety  
DATEMASTER dmt: 100356

Date: 05/05/2016  
Time: 10:57:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A3  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:59
BLANK TEST	0.000	10:59
INTERNAL STANDARD	VERIFIED	10:59
EXTERNAL STANDARD	0.078	10:59
BLANK TEST	0.000	11:00
SUBJECT SAMPLE (Vol=2.01L)	0.000	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.078	11:02
BLANK TEST	0.000	11:03

